

organizing, design and content development, and prepress tasks where electronic files are prepared to be reproduced with ink on paper. Broadly speaking, prepress involves the preparation of all the electronic files that will be utilized to create a publication printed with paper and ink. For a professional publication, this usually involves utilizing an authoring program to create the electronic version of the publication itself, and then using another program (which may be a component of the authoring program), to translate this electronic version into a format from which paper and ink copies of the publication can be printed.

In one typical document production scenario, a print shop receives an order to print a job. That order typically does include an electronic version of a document that the printer has to print to fulfill the order. Creating a prepress format file involves preparing all the electronic files that are necessary to create the electronic print file that can be used by the printer's printing devices to produce a corresponding physical document. The preparation of this file, for example a Postscript file or a PDF file, involves, for example, obtaining a native electronic document file, for example the native file format for Adobe PageMaker or Quark Express, and then collecting all of the font files and image files that are needed in order to create the desired Postscript or PDF file. The lack of availability of these files often slows the prepress process down or makes it impossible to complete. For instance, a user may design a document using Pagemaker and include images and fonts acquired from third party sources. If the user does not make these font files and image files available to the printer, it is impossible to create the prepress format file with the correct fonts and images. Therefore, creating the print file in the prepress process includes by necessity manual intervention to make sure that the proper files are available to create the desired document. Further, it is noted that the prepress file generally has to be created on the printer's computer equipment, because the printing device requires that the Postscript or PDF file be created using the printer driver specific to the printing device on which the document is to be produced. Since a user typically has no idea what printing device will be used by the printer to which the job will be sent, this must be done as part of the prepress process. Further, even if the user knew of the type of printing device used by the printer, it would be difficult to ensure the

proper use of that driver across a large number of potential document authors. As a result, the creating a print file in the prepress process is currently a significant bottleneck and resource wasting step in a printing operation.

In addition to the above, the possibility that incorrect image files or fonts are used by the production workers necessitates that the user ordering the documents receive a proof to review to make sure that the document to be produced matches their intended design. This adds yet another cost and delay to the process. Further, simply faxing the proof document is not possible as the original colors need to be reviewed by the author or ordering personnel, necessitating a hand delivery or shipment of the proof. Even further, if a fax is sent, it is not uncommon for poor reproduction on the fax to obscure errors that are then in turn reproduced in the production run and requiring destruction of the print job.

Furthermore, portions if not all of the prepress process is difficult for non-professionals to accomplish, however. While tools such as Adobe PageMaker and Quark Express enable professionals to more easily create professional-looking documents, most non-professionals find these computer programs overly complex and difficult to use. That is, although the computers sitting on the desks of such non-professionals are sufficiently powerful to handle such tasks, the users themselves may not be sufficiently knowledgeable to perform them. Furthermore, even for experienced professionals, the prepress process is fraught with uncertainty; for example, the professional must know the type of paper and ink output that is desired a priori before translating an electronic version of a document into a format from which paper and ink copies can be printed. That is, even for experienced professionals, the prepress process is not tightly integrated enough to attain fast, easy and cost-effective print publishing.

The Invention

The invention as now more clearly specified in the amended claims, provides for several advantages. The user at the client does not need to know anything about the prepress format required by the printer. Since the server stores the authoring program that is then downloaded to the client for creation of a document, the server can maintain the authoring program such that it

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knows both the format to which the authoring program saves the document, and the format to which the document must be translated for printing at the printer. Furthermore, the authoring program stored at the server may be as simple as necessary for novice users to comfortably use, or as powerful as necessary for experienced users to use. The professional user benefits from the tight integration of the invention, in that the professional user need only be concerned with creating the document, and not the manner by which the document will ultimately be prepared into a prepress file format.

Further, the applicants' invention provides that the creation of the print file in the prepress process can be done automatically without any manual intervention to assemble the proper font and image files. The system and method and devices of the present invention therefore greatly reduce the cost and increase the speed at which a document can be produced from an authored electronic document. *For example, as set forth in claim 1, the applicants' invention provides for a "software system" that is "configured to provide that the authoring tools [downloaded from the server to the client] create an electronic document using the client computer and that the client computer transfers the electronic document to the server computer in a form allowing the translation component executing on the server computer to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need only be concerned with authoring the electronic document and not with creating a prepress format file, and further so that the authored electronic document can be automatically processed by the server computer into a prepress format file."* (emphasis added).

The applicants' claim 1 further provides that "at least one downloaded authoring tool is a program that executes in the web browser and has one or more functions that can be used to create an electronic document, display the electronic document in WYSIWYG form to the user, and allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed."

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The combination of these features has a profound impact on the process and equipment for authoring a document and creating a prepress format file. More specifically, claim 1 delineates a system in which proofing is entirely optional as the user can view the authored document in the web browser, as the document is authored, and be assured that the document produced by the printing personnel will be an exact reproduction, within the limits of these authoring and printing technologies, of what they see in the web browser. Not only is the proofing process eliminated or at least made less critical or optional, the process of creating a print file, i.e. a "prepress format file" is automated, speeding delivery of documents and saving substantial labor costs involved in ordering and production of a print job, and minimizing the need to reprint botched orders.

Discussion of the References

None of the prior art cited to date by the PTO discusses any of the problems solved by the applicants' invention, and neither do any of these references describe a process or system or device that even is close in the general sense to the functionality provided by the Applicant.

U.S. Patent No. 5,818,442, raised as a possible relevant reference at the interview, discloses a system which has nothing to do with the prepress process as claimed by the Applicants. This patent discloses an electronic videoconferencing system between two or multiple people. Though the patent represents the items developed as "businesscards" or "bizcards", the patent never produces a print ready file of the businesscard. The term "businesscard" or "bizcard" represents the patent's definition of the electronic process for exchanging business information in a teleconference. The basic premise is that when one meets with another person, there is an exchange of businesscards. However, in electronic conferencing, there is no way to exchange these businesscards. Thus, a simulated "businesscard" is exchanged. It is not a document to be printed in a prepress process. The problem solved is personalizing a conference call to make it feel like a real meeting.

On the contrary, the Applicants have disclosed a system involving the process of

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downloading a client application from a server which allows a user to edit, proof, and order printed matter (business cards, letterheads, etc.). This client application then transfers data to the server application where a print ready file is created and forwarded to a printing facility.

The problems solved by the Applicants' invention are many, and totally different from this reference. In conclusion, the processes and problems of the Applicants' invention are completely different from U.S. '5,818,442, which makes no reference to downloading of an authoring tool, no streaming back to a central server, and no conversion to a prepress/print ready format.

One specific argument presented by the USPTO in the meeting related to column 5 of U.S. 5,818,442, as it pertained to translating from one dataset to another. In particular, U.S. '442 provides that the data sets could consist of 1) ANSI or 2) DBCS native languages. These are the "native" languages for electronic conferencing systems – ANSI being a North American and European standard, DBCS being an Asian standard. These standards have been set by governing bodies as the industry standards. However, the Applicants' are not attempting to claim the conversion of one file type to another in the abstract. Rather, the Applicant's claims relate to the authoring and prepress systems.

As noted above, the Applicants' system provides for various advantages such as 1) no authoring software having to be loaded on each computer system, 2) no drawn out faxing or mailing or hand delivery of proofs between printer and customer, 3) substantial savings of customer and prepress times compared to traditional times, and 4) rapid turnarounds, as the server application automatically creates a print ready prepress format file.

The applicants note that they have submitted an additional Information Disclosure Statement. That statement discloses two online print ordering systems that one of the inventors of the present invention helped develop in 1996 and 1997 (1997 JEX BizCards System and 1996 Banc JEX system). In preparing for the examiner interview of August 28, 2000, the applicants' attorney determined that it would be desirable to bring this to the attention of the PTO. In addition, the disclosure statement also makes reference to a web site found at www.iprint.com.

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The 1997 JEX BizCards System provided that a user could order, using a web browser and the world wide web, business cards. This system displayed to the user a generic image of a business card that could be customized with the user's name, address, phone etc.... The user could then use a form to enter this information into the web browser and the data was sent to the server. The server then sent an e-mail to a print shop that specified the information (name, address ...) supplied by the user, that the print shop or processing facility would then enter that information into an authoring program such as Pagemaker to produce a business card that appeared like the generic card, only with the customized information. This system was not a downloadable authoring tool, it did not allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed, and further it did not provide authoring tools that execute in the web browser, as set forth in the applicants' claims. In fact, the limitations with this prior system were such that it was abandoned as failing to provide a commercially viable system from the applicants' perspective. The 1996 Banc JEX system is similar in operation to the 1997 JEX BizCard System, allowing a user to pick a generic form and specify text or artwork to include.

The IPrint web site discloses a catalog ordering system similar to the 1996 Banc JEX and 1997 BizCard Systems ("JEX Systems") for ordering printed items on-line, where the information on the printed item is also submitted by the user at the client computer utilizing a form that the user fills in. However, the IPrint system web server also generates a likeness of the card for display at the client, using the name, address etc.. type data submitted in the form. Like the Jex Systems, it is not a downloadable, executable authoring tool, and it does not allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed, and further it does not provide authoring tools that execute in the web browser, as set forth in the applicants' claims. Further, the applicants' do not admit that this is prior art because they lack sufficient information to determine the same with certainty, but admitting for the purposes of argument only that it is, it can be readily distinguished. In particular, the IPrint system's primary paradigm is catalog ordering, and not

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electronic authoring. As such, it does not contemplate or address the problems solved by allowing a user to access and use executable authoring tools at a client computer. No electronic documents are authored by a user with an executable downloaded file, at the client and subsequently translated to a prepress format file at the server. Nor does it suggest such an approach, as there is no teaching or application regarding trying to improve on conventional programs like Pagemaker and Quark in the prepress process.

Moreover, the present invention, although not requiring it in the claims as currently presented, permits "free form" authoring tools to be downloaded to a client, and a user at the client to create unique "free form" documents using these authoring tools while still not having to be concerned about whether the document can be readily translated to a producible prepress format file. This capability is yet another major possible advantage of the Applicants' claimed basic configuration.

Because the examiners in the interview apparently conceded without discussion that the Grasso reference was not as relevant as prior references cited and previously distinguished, it will not be further discussed here. It is noted, however, that Grasso is only tangentially relevant at best to the Applicants' invention.

It is noted that various changes in the claims have been made in this amendment. The Applicant wishes to point out, however, that none of the art cited to date anticipates or renders obvious the original claims submitted by the Applicants. The amendments to the claims submitted herewith are submitted in order to more clearly bring out the functionality of the prior claim format, and not to narrow the scope of the claims to stay free of the cited art.

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In view of the above, it is respectfully submitted that the claims are all allowable, and reconsideration and allowance thereof is respectfully requested.

Respectfully submitted,

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